# R3: Test Run 7/10/2015 Version 1.0

| | |
|---|---|
| Created On | 7/10/2015 |
| Completed | No |

| Passed | Blocked | Untested | Retest | Failed |
|---|---|---|---|---|
| 100% (4/4) | 0% (0/4) | 0% (0/4) | 0% (0/4) | 0% (0/4) |

## 1. Third Test on Convolution

Convolution is a simple mathematical operation which is fundamental to many common image processing operators. Convolution provides a way of `multiplying together' two arrays of numbers, generally of different sizes, but of the same dimensionality, to produce a third array of numbers of the same dimensionality. This can be used in image processing to implement operators whose output pixel values are simple linear combinations of certain input pixel values.

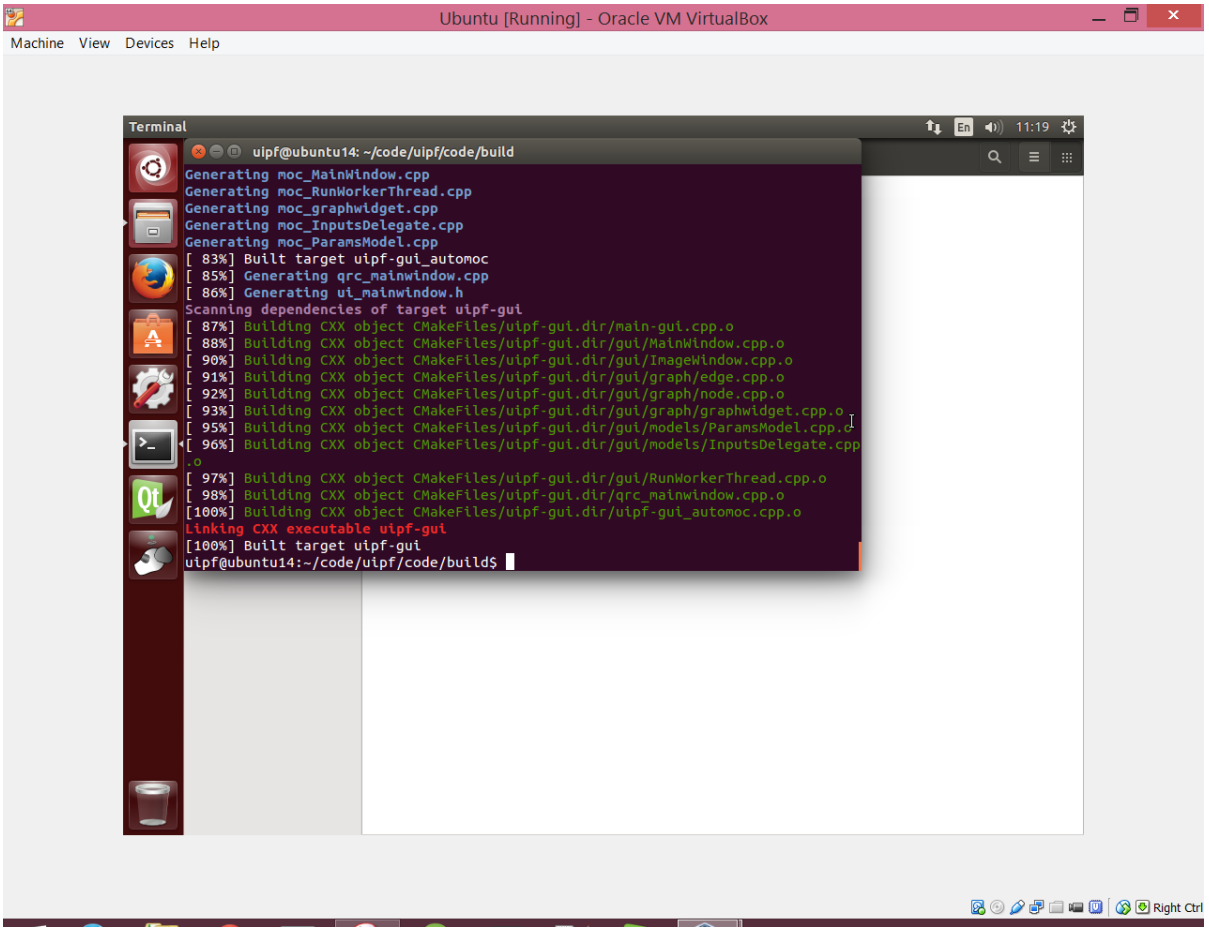
To test for convolution of one input image with the kernel image to show the result in color of the kernel image.

### T19: Oepn GUI & define the convolution step

| Status | Type | Priority | Estimate |
|---|---|---|---|
| Passed | Functional | Critical | None |

**References**
None

Preconditions




Master branch should not have any errors before performing the functionality test

Steps

1) Open the GUI
2) create step 1 & name it as "convolution".

3) choose the module as image processing with convolution
4) set the value of delta as "-500"
5) input from steps kernel & image

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Expected Result

No error in the log window

Results

Passed

By **a s.**
7/10/2015 1:47 PM

**Elapsed**
1s

works fine

## T20: set up the image & kernel steps

| Status | Type | Priority | Estimate |
| --- | --- | --- | --- |
| Passed | Functional | Critical | None |

**References**
None

Preconditions

C4

Steps

1) Create a new step & name it as image
2) set the I/O module as loadimage
3) Set the parameters in the filename as input.jpg
4) Create a new step & name it as kernel
5) set the I/O module as loadimage
6) Set the parameters in the filename as kernel.png & mode as grayscale

Expected Result

No error in the log window

Results

Passed

By **a s.**
7/10/2015 1:47 PM

**Elapsed**
3s

works fine

## T21: set up result

| Status | Type | Priority | Estimate |
|---|---|---|---|
| Passed | Functional | Critical | None |

**References**
None

Preconditions

C5

Steps

1) create the step & name it as result
2) set the module I/O with storeimage & filename as output.png
3) set the input steps from convolution & output to image

Expected Result

No error in the log window

Results

Passed

By **a s.**
7/10/2015 1:47 PM

**Elapsed**
1s

works fine

## T22: set up show image, kernel, result

| **Status** | **Type** | **Priority** | **Estimate** |
|---|---|---|---|
| Passed | Functional | Critical | None |

**References**
None

## Preconditions

C6

## Steps

1) Create the step show image
2) set the module I/O with showImage
3) inputs from step image and output name as image
4) create the step show kernel
5) set the module I/O with showImage
6) inputs from step kernel and output name as kernel
7) create the step show result
8) set the I/O module with showImage
9) input from step convolution and output name as image

## Expected Result

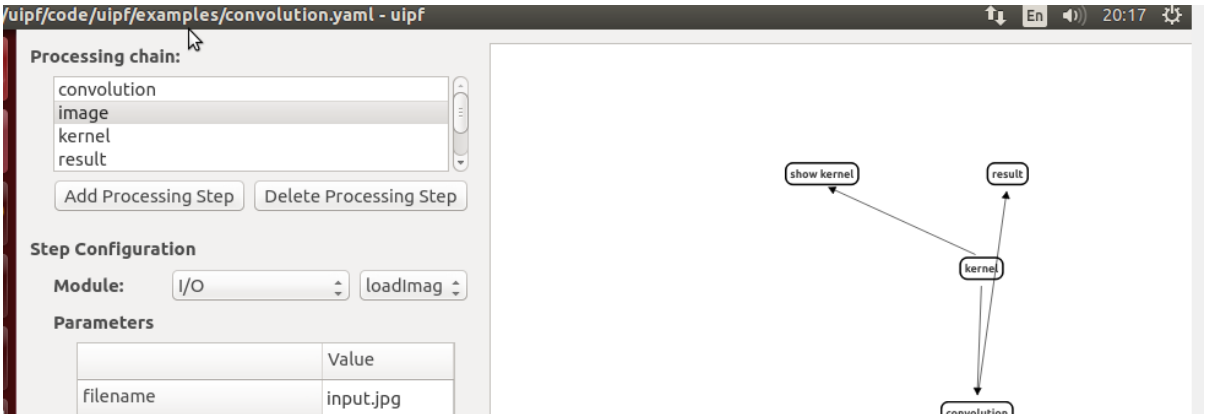

Input image

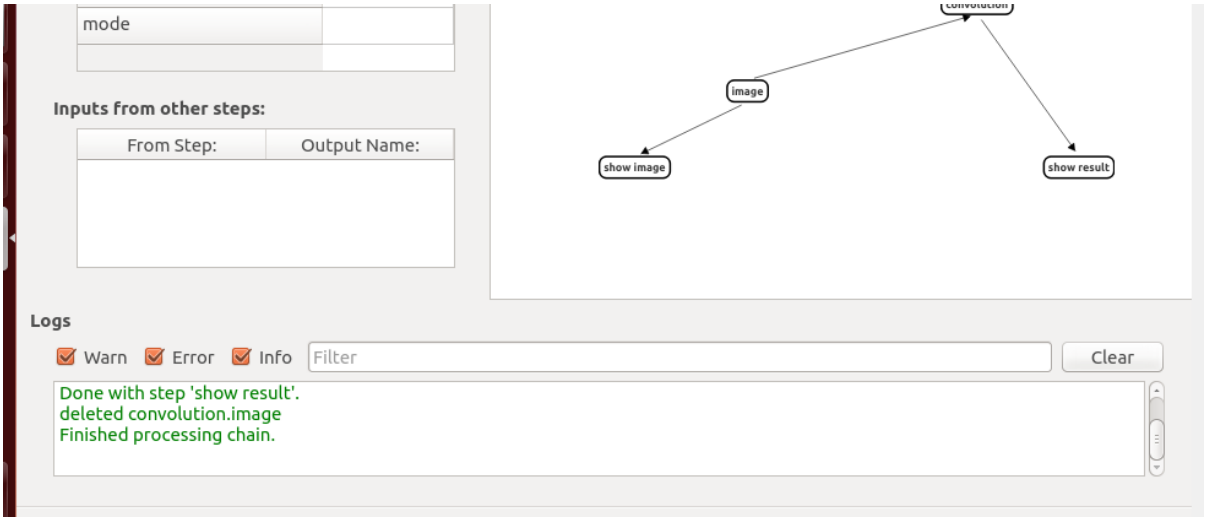
- 

kernel image

kernel image


show result






graph

## Results

Passed

By **a s.**
7/10/2015 1:47 PM

**Elapsed**
1s

works fine